REMARKS

Claims 1, 4, 6-10, 14-17 and 20 are pending in this application. Claim 20 has been newly added. Reconsideration of the rejections in view of these amendments and the following remarks is respectfully requested.

Rejections under 35 USC §112

Claims 1, 4, 6-10 and 14-19 were rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement.

The Examiner alleged as follows:

> (a) Applicants have amended each of claims 1, 14, 16, and 17 to recite that the copolymer has "glass transition point less than or equal to 50 °C." It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement for the upper limit of the glass transition temperature of 50 °C in the application as originally filed.

The MPEP at 2163.05, however, describes as follows:

> III. RANGE LIMITATIONS
>
> With respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported by the discussion in the original disclosure. In the decision in In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976), **the ranges described in the original specification included a range of "25%-60%" and specific examples of "36%" and "50%."** A corresponding new claim limitation to "at least 35%" did not meet the description requirement because the phrase "at least" had no upper limit and caused the claim to read literally on embodiments outside the 25% to 60%" range, however **a limitation to between 35% and 60%" did meet the description requirement**.

Thus, the standard is whether one skilled in the art would consider inherently supported by the discussion in the original disclosure but not whether the range was literally appeared in the original disclosure.

In the original specification of the present application, Table 1 showed Tg of 10, 15, 38, 40, 42, 45, and 65 °C. A person of ordinary skill in the art would consider the range of Tg inherently supported by the original disclosure. Thus, claims 1, 4, 6-10 and 14-19 satisfy 35 USC §112, first paragraph, the written description requirement.

Claims 1, 4, 6-10 and 14-19 were rejected under 35 USC §112, second paragraph, as being indefinite.

(a) There are **22768** patents issued from 1976 to present which have the term "derivative" in the claims. Thus, the term "derivative" has been accepted as a definite claim term.

(b) Claim 19 was rejected because the limitation of the claim is already recited in claim 1. Claim 19 has been hereby cancelled. Thus, the rejection has become moot.

Rejections under 35 USC §103(a)

Claims 1, 4, 6-10 and 14-19 were rejected under 35 USC §103(a) as being obvious over Nguyen et al (U.S. Patent No. 6,248,805) in view of Patel et al (U.S. Patent No. 5,977,210) and Fujisawa et al (U.S. Patent No. 5,997,136).

The present invention concerns to an ink which provides a high quality image by stable dispersion due to rapid drying (namely, stable fixation by self-film-shaping and blur resistance). The presently invented ink includes a copolymer obtained from a radical polymeric monomer, and

avoids blurring. The ink includes copolymer consisting essentially of (a) 20 through 99 wt% of either styrene or styrene derivative; (b) 10 through 80 wt% of alkyl acrylate, alkyl methacrylate, alkyl acrylate derivative or alkyl metacrylate derivative; and (c) 1 or more wt% of polymeric monomer including a polar group, the polymeric monomer including a polar group selected from the group consisting of acrylic acid, methacrylic acid, 2-hydroxypropyl-N, N, N-trimethylammonium chloride acrylate, vinylpyridine and N, N-diallylmethylammonium chloride are necessary to achieve "stably fixed by self-film shaping," as recited in independent claims 1, 14, 16 and 17. These independent claims further recite "a volume average particle diameter ranging from 0.05 through 1 μm," which is necessary to achieve the stable dispersion.

None of the cited references teaches or suggests the above item "(c) 1 or more wt% of polymeric monomer including a polar group, the polymeric monomer including a polar group selected from the group consisting of acrylic acid, methacrylic acid, 2-hydroxypropyl-N, N, N-trimethylammonium chloride acrylate, vinylpyridine and N, N-diallylmethylammonium chloride." The inks disclosed in the cited references do not have the effect of the rapid drying. Therefore, these cited references do not provide a high quality image by stable dispersion due to rapid drying.

For at least these reasons, claims 1, 14, 16 and 17 patentably distinguish over Nguyen et al, Patel et al and Fujisawa et al. Claims 2, 4, and 6-10, depending from claim 1, also patentably distinguish for at least the same reasons. Claim 18, depending upon claim 17, also patentably distinguish for at least the same reasons.

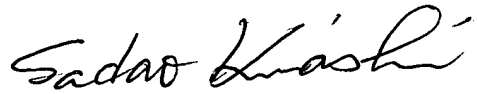
It is submitted that nothing in the cited references, taken either alone or in combination, teaches or suggests all the features recited in each claim of the present invention. Thus all pending claims are in condition for allowance. Reconsideration of the rejections, withdrawal of the rejections and an early issue of a Notice of Allowance are earnestly solicited.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



Sadao Kinashi
Attorney for Applicant(s)
Reg. No. 48,075

SK/sg
1250 Connecticut Ave. N.W.
Suite 700
Washington, D.C. 20036
(202) 822-1100

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